

5 **WHAT IS CLAIMED IS:**

1. A safety shield apparatus comprising:

a housing extending from a proximal end to a distal end and defining a cavity in a side
10 wall thereof, the distal end of the housing including a cover having a movable tab; and

a hub disposed for movement within the housing, the hub including a needle having a
distal end and a movable projection,

wherein the hub is biased between an extended position, such that the distal end of the
needle is exposed and the movable projection is releasably disposed with the cavity, and a
15 retracted position whereby the distal end of the needle is disposed within the housing,

the movable tab being engageable with the movable projection to release the movable
projection from the cavity to facilitate movement of the hub to the retracted position.

2. A safety shield apparatus as recited in claim 1, wherein the hub defines a plurality
of movable projections that are disposable within a plurality of cavities of the housing.

20 3. A safety shield apparatus as recited in claim 2, wherein the cover has a plurality
of movable tabs that are engageable with the plurality of movable projections.

4. A safety shield apparatus as recited in claim 1, wherein the proximal end of the
housing defines a groove on an inner surface thereof that is configured for fixed disposal of the
movable projection, in the retracted position.

5. A safety shield apparatus as recited in claim 1, wherein the housing is substantially rigid.

6. A safety shield apparatus as recited in claim 1, wherein the cover is separately formed and mounted to the distal end of the housing.

5 7. A safety shield apparatus as recited in claim 6, wherein the cover is mounted with the distal end of the housing such that a chamber is formed therebetween.

8. A safety shield apparatus as recited in claim 1, wherein the housing is monolithically formed.

9. A safety shield apparatus as recited in claim 1, wherein the movable tab extends
10 from the cover for pivotable movement relative thereto.

10. A safety shield apparatus as recited in claim 1, wherein the movable projection pivotably extends from the hub and is biased radially outward.

11. A safety shield apparatus as recited in claim 1, wherein the hub is biased for movement within the housing via a spring supported between the hub and the distal end of the
15 housing, and disposed about the needle.

12. A safety shield apparatus as recited in claim 1, wherein the distal end of the housing includes a rigid transverse wall that defines an opening for passage of the needle, the transverse wall further defining a lip disposed about the opening that is configured to capture the distal end of the needle, in the retracted position.

20 13. A safety shield apparatus as recited in claim 12, wherein the hub defines an angled distal surface that engages a biasing member disposed between the hub and the distal end

of the housing such that, in the retracted position, the hub orients the needle out of axial alignment with the housing and into capture with the lip.

14. A safety shield apparatus comprising:

a housing extending from a proximal end to a distal end and defining a plurality of
5 cavities in a side wall thereof, the distal end of the housing including a cover mounted thereto,
the cover having a plurality of tabs pivotably extending therefrom; and

a hub disposed for relative slidable movement within the housing and including a needle
having a distal end extending therefrom, the hub further including a plurality of projections
moveable relative thereto and disposed adjacent a proximal portion thereof;

10 wherein the hub is biased for movement within the housing via a biasing member
supported between the hub and the distal end of the housing, the hub being movable between an
extended position, such that the distal end of the needle is exposed and the projections are each
releasably disposed within a corresponding cavity, and a retracted position whereby the distal
end of the needle is disposed within the housing,

15 each of the tabs being engageable with a corresponding projection to release the
projections from the cavities such that the biasing member forces the hub to the retracted
position whereby the projections are fixedly engaged with the proximal end of the housing.

15. A safety shield apparatus as recited in claim 14, wherein the cover includes a
wing extending therefrom for manipulation of the housing.

20 16. A safety shield apparatus as recited in claim 14, wherein the proximal end of the
housing defines a groove circumferentially disposed about an inner surface thereof that is
configured for fixed engagement with the projections.

17. A safety shield apparatus as recited in claim 14, wherein the biasing member is a coil spring disposed about the needle.

18. A safety shield apparatus as recited in claim 14, wherein the distal end of the housing includes a rigid transverse wall that defines an opening for passage of the needle, the transverse wall further defining a lip disposed about the opening that is configured to capture the distal end of the needle, in the retracted position.

19. A safety shield apparatus as recited in claim 18, wherein the hub defines an angled distal surface that engages the biasing member such that, in the retracted position, the hub orients the needle out of axial alignment with the housing and into capture with the lip.

20. A safety shield apparatus as recited in claim 14, wherein the cover is mounted with the distal end of the housing such that a fluid chamber is formed therebetween.

21. A safety shield apparatus comprising:

a housing extending from a proximal end to a distal end and defining a pair of cavities that are diametrically disposed in a side wall of the housing;

a cover mounted to the distal end of the housing and forming a fluid chamber therewith, the cover including a pair of diametrically disposed tabs pivotably extending therefrom and a pair of diametrically disposed wings extending therefrom;

a hub disposed for slidable movement with the housing and including a needle having a distal end extending therefrom, the hub further including a pair of diametrically disposed projections moveable relative to the hub,

wherein the hub is biased for movement within the housing, via a coil spring supported between the hub and the distal end of the housing and disposed about the needle, between an

extended position, such that the distal end of the needle is exposed and the projections are each releasably disposed within a corresponding cavity, and a retracted position whereby the distal end of the needle is disposed within the housing, each of the tabs being engageable with a corresponding projection to release the projection from the cavities such that the coil spring
5 forces the hub to the retracted position whereby the projections are fixedly disposed within a groove formed in the proximal end of the housing; and

tubing having a first end being attached to a proximal end of the hub and in fluid communication with the needle, a second end of the tubing being attached to a fluid administration apparatus and in fluid communication therewith.

10 22. A safety shield apparatus comprising:

a housing extending from a proximal end to a distal end and defining a pair of cavities that are diametrically disposed in a side wall of the housing;

a hub disposed for slidable movement with the housing and including a needle having a distal end extending therefrom, the hub further including a pair of diametrically disposed
15 projections moveable relative to the hub,

wherein the hub is biased for movement within the housing, via a biasing member supported between the hub and the distal end of the housing and disposed about the needle, between an extended position, such that the distal end of the needle is exposed and the projections are each releasably disposed within a corresponding cavity, and a retracted position
20 whereby the distal end of the needle is disposed within the housing, each of the projections being engageable to release the projections from the cavities such that the biasing member forces the

hub to the retracted position whereby the projections are fixedly disposed within a groove formed in the proximal end of the housing; and

tubing having a first end being attached to a proximal end of the hub and in fluid communication with the needle, a second end of the tubing being attached to a fluid administration apparatus and in fluid communication therewith.

23. A safety shield apparatus comprising:

a housing extending from a proximal end to a distal end and defining a plurality of cavities in a side wall thereof, the distal end of the housing including a cover mounted thereto, the cover having a plurality of tabs pivotably extending therefrom and a pair of diametrically disposed wings extending therefrom, the cavities and the tabs being proximally disposed relative to the wings; and

a hub disposed for relative slidable movement within the housing and including a needle having a distal end extending therefrom, the hub further including a plurality of projections moveable relative thereto and disposed adjacent a proximal portion thereof;

wherein the hub is biased for movement within the housing, via a biasing member supported between the hub and the distal end of the housing, between an extended position, such that the distal end of the needle is exposed and the projections are each releasably disposed within a corresponding cavity, and a retracted position whereby the distal end of the needle is disposed within the housing,

each of the tabs being engageable, proximal to the wings, with a corresponding projection to release the projections from the cavities such that the biasing member forces the hub to the

retracted position whereby the projections are fixedly engaged with the proximal end of the housing.

24. A safety shield apparatus as recited in claim 1, wherein the housing and the cover are monolithically formed.